SNOW SURVEYS AND IRRIGATION WATER FORECASTS

FOR

RIO GRANDE BASIN

March 1, 1939

The following data pertaining to snow surveys and irrigation water-supply forecasts are provided by the Bureau of Agricultural Engineering of the U. S. Department of Agriculture, in cooperation with other Federal Bureaus, State Departments, and local organizations. The snow measurements are made principally by field personnel of the U. S. Forest Service and Colorado State Engineer. This work is otherwise conducted cooperatively with the State Engineers of Colorado and New Mexico, Colorado Agricultural Experiment Station, and various municipalities, irrigation associations and others. Precipitation records are supplied by the U. S. Weather Bureau.

PRECIPITATION DATA

WATERSHED	STATE	Precipitation October 1 to February 28	Departure from Normal	Precipitation February	Departure from Normal
		Inches	Inches	Inches	Inches
Canadian	New Mexico	4.52	-1.35	0.46	-0.05
Rio Grande	Colorado	4.05	+1.37	0.79	+0.16
Rio Grande	New Mexico	5.66	+0.49	0.93	- .24
Pecos	New Mexico	3.86	+0.38	0.43	- .20

Snow cover on the watershed of the Rio Grande in Colorado is slightly less than it was on March 1, last year, but in New Mexico it is 80 percent greater. On the watershed of the Canadian the snow cover is also greater than last year, particularly on the Ocate Mesa.

Reservoir storage on the Upper Rio Grande is more than double the amount it was last year at this time. Soil moisture conditions in the San Luis Valley are excellent. In New Mexico the amount of water in storage in reservoirs and in the soil has not changed materially during the last month.

If normal snowfall occurs during the next two months, the summer runoff should approximate the flow of last year. The runoff will probably occur earlier than last year because the snow cover in New Mexico is greater this year and being at lower elevations and lower latitudes melts at an earlier date.

Summary of Federal and State Cooperative Snow Surveys
Bureau of Agricultural Engineering, U. S. Dept. Agri.; Forest Service; Colo. Agri. Expt. Station
Issued March 10, 1939 Colo. Expt. Station, Fort Collins, Colo.

No.	Main Drainage and Snow Course	Local Drainage	Location			Elev.	National Forest	Mar. 1 Snow Course Measurements					
			State	Locality	Description			Av. Snow Depth			Av. Water Content		
								Avg.	1938	1939	Avg.	1938	1939
								In.	In.	In.	In.	In.	In.
	RIO GRANDE												
26	Wolf Creek Pass	South Fork	Colo.	Wolf Cr. Pass	4-37N-2E	10000	Rio Grande	80.9	76.9	67.2	24.7	22.9	19.7
27	Upper Rio Grande	Rio Grande	"	Rio Grande Res.	13-40N-4W	9350	" "	24.9	24.9	19.0	5.6	5.4	4.4
74	LaVeta Pass No.2	San.Cristo Cr.	"	LaVeta Pass	23-28S-70W	9300	Off Forest	34.7#	--	43.8	8.0#	--	10.3
47	Silver Lakes	Alamosa R.	"	1 mi.S.Silver L.	15-36N-5E	9600	Rio Grande	25.2	23.1	26.0	4.9	4.8	4.4
49	River Springs	Conejos R.	"	10mi.W.Mogote	25-33N-6E	9300	" "	31.9	29.2	29.2	8.1	7.3	6.6
75	Ute Ridge	Rio Grande	"	Rio Grande Res.	31-41N-4W	9700	" "	--	--	20.9	--	--	5.1
76	Summitville	Wightman Cr.	"	Summitville	30-37N-4E	11500	" "	--	--	54.0	--	--	14.1
77	Cumbres Pass No.2	Los Pinos R.	"	Cumbres Pass	17-32N-5E	10000	" "	73.7#	63.2#	80.7	24.7#	22.3#	22.8
80	Santa Maria	N.Clear Cr.	"	Santa Maria Res.	8-41N-2W	9700	" "	--	--	16.6	--	--	3.7
1	Red River	Red River	N.Mex.	6 mi.SE.Red River	29-28N-15E	9500	Carson	28.5	17.7	24.9	7.8	4.9	7.1
2	Taos Canon	Rio de Taos	"	14mi.E.Taos	10-25N-15E	9000	"	18.3	8.3	19.6	5.3	2.8	5.8
4	Aspen Grove	Rio En Medio	"	10mi.NE.Santa Fe	12-18N-10E	9100	Santa Fe	18.8	6.8	30.7	4.5	1.7	7.3
5	Lee Ranch	Jemez Cr.	"	5mi.NW.Bland	3-18N-4E	9050	" "	24.5	15.5	28.9	5.5	3.6	6.3
6	Canjilon	Canjilon Cr.	"	8mi.NE.Canjilon	4-26N-6E	9500	Carson	48.4	40.7	50.7	16.7	12.7	17.3
7	Rio Nutrias	Rio Nutrias	"	10mi.SE.ParkView	6-27N-5E	7900	"	17.4	10.8	20.6	4.9	4.2	4.3
8	Panchuela	Panchuela Cr.	"	1mi.N.Cowles	34-19N-12E	8500	Santa Fe	10.8	2.4	20.9	3.1	1.4	4.8
9	Hematite Park*	Red River	"	3mi.SE.Red R.	8-28N-15E	9500	Carson	18.2	13.5	18.9	5.1	4.1	4.1
12	Tres Ritos	Agua Piedra	"	7mi.W.Holman	23-22N-13E	9000	"	19.4	7.7	31.1	5.5	2.7	8.3
							Average for Drainage	31.7	24.3	33.5	9.0	7.2	8.7
	CANADIAN												
9	Hematite Park	Moreno Cr.	"	3mi.SE.Red R.	8-28N-15E	9500	Carson	18.2	13.5	18.9	5.1	4.1	4.1
10	Ocate Mesa	Ocate Cr.	"	3mi.E.Black Lake	25-24N-16E	9200	Off Forest	11.8	6.2	17.4	3.1	1.6	4.6
							Average for Drainage	15.0	9.8	18.1	4.1	2.8	4.3

*On adjacent drainage
#Readings on original course

(1709-39)